

Remarks/Arguments

Claims 1-4, 6, 8-11, and 13-20 are pending in the present application, claim 5 having been cancelled by this amendment, claims 7 and 12 having been cancelled by a previous amendment, and claims 18-20 having been added by the present amendment. It is respectfully submitted that no new matter has been added by way of this amendment.

As an initial matter, Applicant would like to thank the Examiner for conducting two interviews regarding this case on October 20 and October 21, 2010. No specific agreement regarding the claims then presented in the application was reached. The remarks herein are presented to summarize and amplify the matters discussed during such interviews. Applicants also would like to point out that the present amendment is a substitute for the unentered Amendment G dated October 22, 2010, and amends the application claims in a different manner than Amendment G.

Applicants respectfully traverse the rejection of claims 1-4, 6, 8-11, and 13-17 as anticipated by Sailors or as obvious over Sailors in view of Privas. Applicants also contend that claims 18-20 added herein patentably distinguish over such references.

Claim 1, as amended herein, and claims 2-4, 6, and 7-11 dependent thereon, recite *inter alia* a dispenser head having a solenoid valve disposed therein and having an armature, a bobbin wound with electrical wire and a metallic locking cover fully enclosing the armature and the bobbin wound with electrical wire wherein the metallic locking cover enhances magnetic flux developed by the solenoid valve and wherein the metallic locking cover means comprises a metallic hood and a metallic base, and wherein the metallic hood engages the metallic base to lock the metallic locking cover.

Claims 13-17, as amended herein, specify *inter alia* a dispenser including a dispenser head having a solenoid valve means including a bobbin wound with an electrical wire and an armature wherein the solenoid valve means with the bobbin and the armature are fully enclosed in a metallic locking cover means. These claims further specify that the metallic locking cover means has a metallic base and a metallic hood complimentary to one another such that the metallic base can engage the metallic hood to lock the metallic locking cover means and that the metallic locking cover means is arranged to intensify magnetic flux that facilitates opening of the valve means.

Added claim 18, and added claims 19 and 20 dependent thereon, recite, among other elements, a dispenser having: “a metallic locking cover means including a metallic base having a hooked portion and a metallic hood having an indented portion, wherein the hooked portion and the indented portion interlock with one another such that the metallic base can engage the metallic hood to lock the metallic locking cover means . . . and a solenoid valve means including a bobbin wound with electrical wire and an armature all fully enclosed in the metallic locking cover means, . . . , wherein magnetic flux developed by electrical current delivered to the solenoid valve means is enhanced by the metallic locking cover means.”

Neither Sailors standing alone nor the combination of Sailors and Privas discloses or suggests a metallic locking cover fully enclosing an armature and a bobbin wound with electrical wire of a solenoid valve wherein the metallic locking cover enhances or intensifies magnetic flux, as recited by claims 1-4, 6, and 7-11.

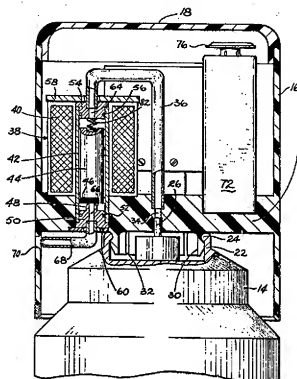
Further, neither Sailors nor Privas discloses or suggests a dispenser including a dispenser head having a solenoid valve means including a bobbin wound with an electrical wire and an armature wherein the solenoid valve means with the bobbin and the armature are fully enclosed in a metallic locking cover means wherein the metallic locking cover means is arranged to intensify magnetic flux which, when the dispenser is in use, facilitates opening of the valve means. These elements are specified by claims 13-17.

Still further, neither Sailors nor Privas discloses or suggests a dispenser having a solenoid valve means including a bobbin wound with electrical wire and an armature all fully enclosed in a metallic locking cover means wherein magnetic flux developed by electrical current delivered to the solenoid valve means is enhanced by the metallic locking cover means, as recited by claims 18-20.

Rather, Sailors shows an automatic spray dispenser 10 that includes a timer circuit 74 (*see also* FIG. 4) and a solenoid operated valve 26 having a moveable armature piston 44. The solenoid valve has a solenoid coil 40 that surrounds a cylindrical sleeve 42. The cylindrical sleeve 42 includes a cylindrical recess that slideably receives the piston 44. Upper and lower closure members 54, 46 are held in place on opposite ends of the piston 44 by upper and lower clamping plates, 58, 60 held together by elongated bolts 62.

The examiner's characterization of the components of Sailors does not comport with the

claim language in the present application. This is due to the fact that the Sailors device utilizes a different mode of operation than the present invention as claimed.



Specifically, as seen above, the dispenser 10 disclosed in Sailors includes a tube 36 that depresses an upright valve stem 26 of an aerosol container 12 when the dispenser 10 is mounted on an upper portion of the container 12. Pressurized fluid within the container 10 is thus permitted to travel to the cylindrical recess defined by the sleeve 42. When no current is flowing through the solenoid coil 40, the piston 44 is forced into engagement with a valve seat on a protuberance 48 so that the pressurized fluid cannot escape an outlet tube 68. However, the pressurized fluid in the cylindrical recess produces forces on the opposing ends of the movable piston 44 that are substantially, but not completely, balanced so that there is a small downwardly directed force that maintains the piston 44 in sealing engagement with the protuberance 48. When it is desired to operate the dispenser 10, a relatively small magnitude of current is supplied to the solenoid coil 40 such that the coil 40 develops just enough magnetic field strength to move the piston 44 away from the protuberance 48, and thus permit pressurized fluid to escape through the space between the piston 44 and the protuberance 48 and flow outwardly through the outlet

tube 68. Thereafter, the flow of pressurized fluid through the tube 36 and the cylindrical recess defined by the sleeve 42 causes the piston 44 to be moved downwardly to reseat with the valve seat of the protuberance 48 so that further flow is prevented. A metered amount of pressurized fluid is thereby dispensed.

As should be evident from the foregoing, the device disclosed in Sailors is designed to obviate the need for a precision pulse width control or double valving arrangements. As noted at column 6, lines 63-65 of Sailors: "typically the maximum lifting force provided by the solenoid 38 on its armature 44 in opening the outlet valve is in the order of several ounces," thereby rendering it unnecessary to deliver high power (i.e., high current magnitudes) to the solenoid coil 40 to unseat the movable piston 44. As a result, there is no need to intensify or enhance magnetic flux developed by the solenoid coil 40 of Sailors.

Further, the examiner characterizes the cylindrical sleeve 42 of Sailors as a metallic cover. There is no teaching or suggestion that the sleeve 42 of Sailors is either metallic or a cover. In addition, Sailors' sleeve is surrounded by the solenoid coil rather than the solenoid coil being enclosed by the sleeve.

Also, there is no disclosure in Sailors, including those portions cited by the examiner, that the cylindrical sleeve, clamping plates, closure members, or any other structures are arranged to enhance or intensify magnetic flux.

Privas discloses a device for spraying a fluid, wherein the device includes an actuator head 1 affixed to a tank 100 of fluid (see FIG. 22). Referring also to FIGS. 27 and 28, the actuator head 1 includes a hook 107 that engages a loop 106 disposed on a top portion of the tank 100. A solenoid 13 has a soft iron core armature 12 connected to a non-magnetic rod 14 that actuates a pump 6 via a pushbutton 10 having a nozzle 11, and which is mounted on an actuator rod 9 (see FIG. 2). While Privas discloses a cover for a solenoid actuated spray valve (presumably the rigid shell 104 seen in FIG. 28 of Privas), Privas fails to disclose or suggest the material of the rigid shell 104, and thus fails to disclose or suggest a metallic cover that is capable of enhancing or intensifying a magnetic field. Also, Privas does not disclose or suggest a bobbin wound with electrical wire fully enclosed by a cover, as now recited by the pending claims. In this regard, FIG. 28 of Privas instead discloses that the rigid shell 104 has a gap on a right side thereof as seen in such figure.

In order for a claim to be anticipated under 35 U.S.C. § 102(b), a single prior art reference must show all of the recited limitations arranged or combined in the same way as recited in the claim. *Net Money, Inc. v. Verisign, Inc.*, 545 F.3d 1359, 1369 (Fed. Cir. 2008). In addition, to support a *prima facie* case of obviousness under 35 U.S.C. § 103, an examiner must establish “a finding that the prior art included each element claimed, although not necessarily in a single prior art reference, with the only difference between the claimed invention and the prior art being the lack of actual combination of the elements in a single prior art reference.” MPEP § 2143(A) (citing *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398 (2007)). In this case the rejections of claims 1 and 13, and claims 2-4, 6, 8-11, and 14-17 dependent thereon, are incorrect because neither Sailors nor Privas discloses or suggests all of the elements recited by these claims as noted above.

Added claims 18-20 are also allowable over the cited references for the reasons presented above in connection with the remaining pending claims of the application.

For the foregoing reasons, reconsideration and withdrawal of the rejections of the claims at issue and allowance thereof is respectfully requested.

Deposit Account Authorization

The Commissioner is hereby authorized to charge any deficiency in any amount enclosed or any additional fees which may be required during the pendency of this application under 37 CFR 1.16 or 1.17, except issue fees, to Deposit Account No. 50-1903.

Sincerely,
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